

HDP 70 High Pressure Pump Series

Design criteria

Hammelmann high pressure pumps are built to operate at the continuous maximum duty stated in the performance parameters. Just compare the crank shaft speed, average plunger speed, plunger diameter and power rating.

Features

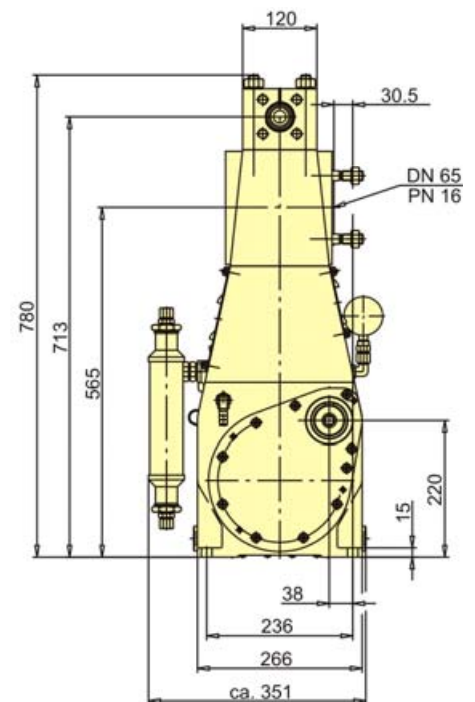
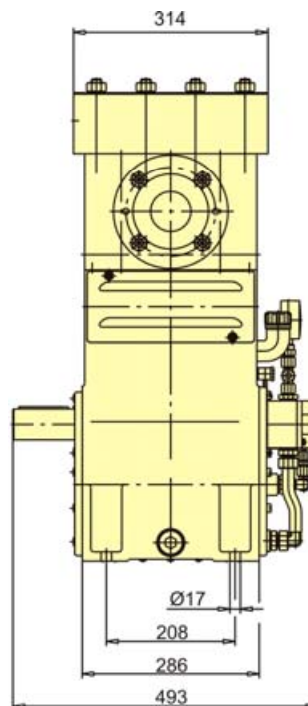
- Power ratings up to 70 kW
- Vertical 3 cylinder design
- Wide variety of complementary ancillaries

Quality and reliability

- Stainless steel stress free pump head
- Bellows form hermetic seal between the suction chamber and crank section
- Choice of application specific seal assemblies
- Solid ceramic or tungsten carbide plungers
- Choice of bronze (standard) or stainless steel suction chamber
- Crank section calculation by 'Finite element method' ensures long working life under continuous load
- Integral speed reduction gear
- Pressurised oil lubrication system with oil cooler/filter



Weight: approx. 215 kg



HDP 70 series, technical data

Performance parameters

Q [l/min]*	Required power rating [kW]					D	r.p.m.	
	30	37	45	55	70		n 1	n 2
	operating pressure [bar]							
7	2000	2450	3000	3000		12	1500	625
8,5	1650	2050	2500	3000			1500/1800	750
10	1400	1700	2100	2550	3000		1800/2150	900
11	1250	1550	1900	2350		15	1500	625
13	1050	1300	1600	1950	2400		1500/1800	750
16	890	1100	1300	1600	2050		1800/2150	900
17	930	1150	1400	1700		17,5	1500	625
19,5	780	970	1150	1400	1750		1500/1800	750
23	650	810	980	1200	1500		1800/2150	900

* At pressures over 2000 bar approx. 5% of the flow rate is lost due to the compressibility factor of water

21	710	880	1050	1300		20	1500	625
26	600	740	900	1100	1350		1500/1800	750
26	600	740	900	1100	1130	22	1500	625
32	500	610	750	910	1130		1500/1800	750
32	500	620	750	920	950	24	1500	625
38	420	520	630	780	950		1500/1800	750
38	430	530	640	780	810	26	1500	625
45	350	440	530	650	810		1500/1800	750
50	320	390	480	590		30	1500	625
59	260	330	400	490	600		1500/1800	750
69	230	290	350	430		35	1500	625
81	190	240	290	360	440		1500/1800	750
91	180	220	270	330		40	1500	625
107	150	180	220	270	340		1500/1800	750
115	140	170	210	260		45	1500	625
135	110	140	170	210	270		1500/1800	750
142	110	130	170	210		50	1500	625
167	90	110	140	170	210		1500/1800	750
172	90	110	140	170		55	1500	625
201	70	90	110	140	180		1500/1800	750
246**	60	70	100	120	150		1800/2150	900

** For intermittent operation only

D = Piston/Plunger dia. [mm]
n1 = Motor/Engine r.p.m.
n2 = Crankshaft r.p.m.

- Rod force: 43 kN
- Stroke: 40 mm
- Mean piston speed at n₂
625 r.p.m. = 0,84 m/sec
750 r.p.m. = 1,00 m/sec
900 r.p.m. = 1,20 m/sec

Typical high pressure pump units



- Stationary unit with electric motor

550 mm



- Trolley

Type designations

Sealing system	D	HDP Type
Hydrodynamic with tungsten carbide plungers	12 - 17,5	74
Labyrinth with solid ceramic plungers	20 - 55	72
Packed sleeves with solid ceramic plungers	20 - 55	77

D = Piston/Plunger dia. [mm]

Conversion table

Rating 1 kW = 1,34 HP
Op. Pressure 1 bar = 14,5 psi
Flow rate 1 l = 0,264 US gallon
1 l = 0,22 Imp. gallon



- Road going or stationary trailer units with sound damping cover
- 10 or 20 foot sound damped container versions

Hammelmann
Maschinenfabrik GmbH

Postfach 3309 • D-59282 Oelde Telefon (0 25 22) 76-0
Zum Sundern 13-21 • Germany Telefax (0 25 22) 76-444
eMail: mail@hammelmann.de • Internet: www.hammelmann.de

HAMMELMANN[®]